In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the

Application.

Listing of Claims:

1.   (Amended) A method for managing use of memory in a system of one or more storage

area networks including an intelligent multi-protocol switch (IMPS) combined with a storage and

switch controller including at least one microprocessor and a disk array for storing meta-data

related to the plurality of data storage volumes such that the one or more data storage networks

are managed by the <u>storage and switch</u> controller using the meta-data and by controlling the

IMPS, wherein the method comprises the steps of :

using memory in the <u>storage and switch</u> controller to supplement the memory of the

IMPS by storing in the IMPS a subset of a full set of extent maps for data volumes handled by

the IMPS, and storing protection maps in the memory of the <u>storage and switch</u> controller that

mark edges of unmapped regions of the data volumes then selectively loading more than the

subset of extent maps in the IMPS in response to host access to the data volumes.

2.   (Amended) The method of claim 1, wherein if host I/O access to a marked region is

noted as being sequential then additional extent maps that complement the subset of the full set

of extent maps are loaded to the IMPS by the <u>storage and switch</u> controller.

3.   (Amended) The method of claim 1, wherein host I/O access requests related to data volumes for which no extent maps are loaded are handled by loading the map from the storage and switch controller to the IMPS.

4.   (Amended) The method of claim 1, wherein the storage and switch controller uses host I/O access data collected from the IMPS to determine which data to replace in its memory.

5.   (Original) The method of claim 1, wherein if stored extent maps have become fragmented a process is triggered to reduce the fragmentation.

6.   (Canceled)

7.   (Amended) The method of claim 2, wherein host I/O access requests related to data volumes for which no extent maps are loaded are handled by loading the map from the storage and switch controller to the IMPS.

8.   (Amended) The method of claim 2, wherein the storage and switch controller uses host I/O access data collected from the IMPS to determine which data to replace in its memory.

9.   (Original) The method of claim 2, wherein if stored extent maps have become fragmented a process is triggered to reduce the fragmentation.

10. (Amended) A system for managing use of memory in a storage area network management system, the system comprising an intelligent multi-protocol switch (IMPS) combined with a storage and switch controller including at least one microprocessor and a disk array for storing meta-data related to the plurality of data storage volumes such that the one or more data storage networks are managed by the storage and switch controller using the meta-data and by controlling the IMPS, wherein the system is configured for managing use of the memory by using memory in the storage and switch controller to supplement the memory of the IMPS by storing in the IMPS a subset of a full set of extent maps for data volumes handled by the IMPS, and storing protection maps in the memory of the storage and switch controller that mark edges of unmapped regions of the data volumes then selectively loading more than the subset of extent maps in the IMPS in response to host access to the data volumes.

11. (Amended) The system of claim 10, wherein if host I/O access to a marked region is noted as being sequential then additional extent maps that complement the subset of the full set of extent maps are loaded to the IMPS by the storage and switch controller.

12. (Amended) The system of claim 10, wherein host I/O access requests related to data volumes for which no extent maps are loaded are handled by loading the map from the storage and switch controller to the IMPS.

13. (Amended) The system of claim 10, wherein the storage and switch controller uses host I/O access data collected from the IMPS to determine which data to replace in its memory.

14.   (Original)   The system of claim 10, wherein if stored extent maps have become fragmented a process is triggered to reduce the fragmentation.

15.   (Canceled)

16.   (Amended)   The system of claim 11, wherein host I/O access requests related to data volumes for which no extent maps are loaded are handled by loading the map from the storage and switch controller to the IMPS.

17.   (Amended) The system of claim 11, wherein the storage and switch controller uses host I/O access data collected from the IMPS to determine which data to replace in its memory.

18.   (Original)   The system of claim 11, wherein if stored extent maps have become fragmented a process is triggered to reduce the fragmentation.

19.   (Amended) A program product for managing use of memory in a system of one or more storage area networks including an intelligent multi-protocol switch (IMPS) combined with a storage and switch controller including at least one microprocessor and a disk array for storing meta-data related to the plurality of data storage volumes such that the one or more data storage networks are managed by the storage and switch controller using the meta-data and by

controlling the IMPS, wherein the program product includes computer-executable code encoded on a computer-readable medium for executing the steps of:

using memory in the <u>storage and switch</u> controller to supplement the memory of the IMPS by storing in the IMPS a subset of a full set of extent maps for data volumes handled by the IMPS, and storing protection maps in the memory of the <u>storage and switch</u> controller that mark edges of unmapped regions of the data volumes then selectively loading more than the subset of extent maps in the IMPS in response to host access to the data volumes.